

REMARKS

In the Office Action dated July 18, 2006, claims 1-10, 13-20, 23 and 24 are pending in the application and stand rejected. Claims 23-24 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,389,419 (“Wong”). Claims 1-5, 7, 9, 10, 13-15, 17, 19-20 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,991,881 (“Conklin”) in view of Wong. Claims 8, 16 and 18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Conklin in view of Wong and further in view of “Official Notice.” Claim 6 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Conklin in view of Wong and further in view of U.S. Patent No. 6,842,861 (“Cox”). Applicants cancel claims 23 and 24 without prejudice or disclaimer and traverse the rejections.

Independent Claim 1 Patently Distinguishes Over the Cited References

Conklin and Wong, independently and in combination, fail to teach or suggest all of the limitations of independent claim 1. More particularly, independent claim 1 relates to a method of detecting a target packet. It recites determining a hash value of at least a portion of a received packet, using the resulting hash value to identify a location in a memory, setting a flag in the memory associated with the memory location, and receiving a query message identifying a target packet at a first network component. In addition, independent claim 1 recites using the flag to determine if the target packet had been encountered.

As set forth in MPEP § 2143, to establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations of rejected claim. However, neither Conklin or Wong teach or suggest using a flag stored in memory to determine whether a target packet has been encountered, as recited in the claim.

The Action concedes that Conklin fails to teach or suggest this subject matter at page 5. Wong fails to cure this deficiency in Conklin. Wong relates to methodology of determining handling instructions for packets received at a receiver, based at least in part on whether the packet is an inbound packet or an outbound packet. The Action asserts that Wong describes using a flag to determine whether a target packet has been encountered in Figures 6 and 8 and at column 5, lines 59–63 and column 6, line 4–36. Applicants disagree. Figures 6 and 8, as well as

the referenced passages, refer to methods of matching packets to connection objects carried out by a server by comparing hashes of portions of packets with hashes stored in a memory structure. If the hash is stored in the memory structure, the memory structure points to a connection object which includes a flag indicating whether the packet is an inbound packet or an outbound packet. In fact, it is specifically referred to in Wong as an “inbound/outbound flag.” As described in the referenced passages of Wong, specifically column 6, lines 9–21,

Hash 302A includes a pointer to an inbound/outbound object 304 with its inbound/outbound flag set, indicating that the hash table entry corresponds to an inbound packet. Inbound/outbound object 304 contains a pointer to a connection object 310 that corresponds to hash 302A....Hash 302B corresponds to the hash of the local IP address and foreign IP address of an outbound packet. Hash 302B includes a pointer to an inbound/outbound object 308 with its inbound/outbound flag not set.

The purpose of the flag is to determine how to handle a particular packet based at least in part on whether it is an inbound or outbound communication. For example, for an inbound packet, a server would need to determine the local address of the packet destination. For outbound packets, the server would need to look up the next hop node to which the packet should be transmitted. The flag is not described as being used for determining whether the packet has been encountered, as explicitly recited in independent claim 1.

Moreover, neither the flag nor the hash lookup function described in Wong could possibly be used to determine whether a packet has been encountered. As described in Wong at column 6, lines 4–8:

When a packet is received, the source and destination of addresses of the packet may be hashed and a match in the has h table occurs for eight the incoming hash or the outgoing hash generated for the connection object.

Thus, the only information described by Wong to be used in creating a hash for a packet is the source and destination address of the packet. Later passages suggest that the hash may also include a port number. As most connections include multiple inbound and outbound packets, a hash of only the source and destination addresses, and possibly a port number, of a packet would not be distinguishable from similar hashes derived from other packets transmitted via the same connection.

Thus, the hashes described by Wong are insufficient for determining whether any particular packet has been encountered.

Thus, Wong fails to cure the deficiencies of Conklin. As Conklin and Wong each fail to teach using a flag to determine whether a packet has been encountered, no reasonable combination of the references yields such subject matter. However, using a flag to determine whether a target packet has been encountered is the explicit subject matter of independent claim 1. Therefore, Applicants request reconsideration and withdrawal of the § 103 rejections of independent claim 1. Claims 2–9 depend from independent claim 1 and add further limitations, thereto. Applicants therefore request reconsideration and withdrawal of the § 103 rejections of these claims, too.

In addition, dependent claim 5 recites that the hash of the packet is over the entire packet. Conklin and Wong fail to teach or suggest this subject matter. The Action suggests that Wong describes this subject matter by describing calculating a hash on the source and destination addresses of the packet. Packets, however, include more than just source and destination addresses. Thus, calculating a hash of packet source and destination addresses is not calculating a hash over the entirety of the packet as recited in the claim. Thus, for this additional reason, Applicants request reconsideration and withdrawal of the § 103 rejection of claim 5.

The Rejections of Independent Claims 10 and 13 Are Improper

Applicants submit that the rejections of independent claims 10 and 13 fail to meet the requirements of a rejection under MPEP § 707. In particular, the Action fails to point out with particularity where in the cited references the Examiner believes the various elements of the claims are taught or suggested. The Action merely states that the claims “do not teach or further define over the limitations in claims 1–5, 7, 9, 14, 15, 19, and 20. Applicants disagree. For example, independent claim 1 recites a method that includes determining whether a target packet has been encountered in response to a query. Claim 10 recites a method that includes determining whether a first packet in a group of packets has been observed based on information obtained from a second packet in the group of packets. Claim 13 recites a system

that includes first and second interfaces, a bus, and a memory, none of which are recited in independent claims 1 or 10. Thus each independent claim stands by itself and should be addressed independently.

Independent Claim 10 Distinguishes Over the Cited References

Conklin and Wong, individually and in combination, fail to teach or suggest each and every element of independent claim 10. More particularly, independent claim 10 recites receiving a first of a plurality of packets and storing a flag in memory linked to a hash of at least a portion of the first packet. Independent claim 10 further recites receiving a second packet in the plurality of packets and processing information in the first packet to determine whether the first packet has been observed.

Neither Conklin nor Wong teaches or suggests processing a second packet to obtain information to determine whether a first packet has been observed. As set forth above, Wong does not teach or suggest determining whether any particular packet has previously been observed. The methodology described in Wong is simply incapable of doing so. Conklin also fails to teach or suggest this subject matter.

As Conklin and Wong each fail to teach using information obtained from a second packet to determine whether a first packet has been observed, no reasonable combination of the references yields such subject matter. However, processing a second packet to obtain information to determine whether a first packet has been observed is the explicit subject matter of independent claim 10. Therefore, Applicants request reconsideration and withdrawal of the § 103 rejections of independent claim 10.

Independent Claim 13 Likewise Distinguishes Over the Cited References

As with independent claims 1 and 10, Conklin and Wong, individually and in combination, also fail to teach or suggest all of the elements of independent claim 13. For example, neither Conklin or Wong teach or suggest a system having a plurality of first hashes, wherein each hash is determined from a respective one of a plurality of packets. Instead, as described above, Wong describes a system storing hashes for connections, not packets.

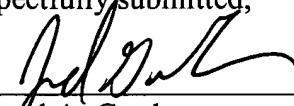
Multiple packets, if they are part of the same connection, would result in the same hash. Thus, Wong does not describe storing hashes determined from respective ones of a plurality of packets. Applicants therefore request reconsideration and withdrawal of the § 103 rejections of claim 13. Claims 14–20 depend on claim 21 and add further limitations thereto. Therefore Applicants request reconsideration and withdrawal of the § 103 rejections of these claims, too.

In view of the above amendment, Applicants believe the pending application is in condition for allowance.

Applicants believe no fee is due with this response other than as reflected on the enclosed Amendment Transmittal. However, if a fee is due, please charge our Deposit Account No. 18-1945, under Order No. BBNT-P01-368 from which the undersigned is authorized to draw.

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Respectfully submitted,

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